



- [Log in](#)
- [Sign up](#)
  
- [Log in](#)
- [Sign up](#)

## EXISTING MEMBERS

Username \*

Password \*

Remember me

[Forgot your password?](#)

## NEW TO RADIOPAEDIA?

Create an Account

You'll be able to create and edit content,  
as well as keep track of playlists

[Continue](#)

*SEE A BETTER WAY FORWARD WITH LEGAL  
SOLUTIONS FROM THOMSON REUTERS*



THOMSON REUTERS®

[About these ads](#)

[Encyclopedia \(browse by topic or system\)](#) [Add Article](#)

[Patient Cases \(browse by topic or system\)](#) [Add Case](#) [Quiz Mode \(diagnose from case presentations\)](#)

This site is targeted at medical and radiology professionals, contains user contributed content, and material that may be confusing to a lay audience. Use of this site implies acceptance of our [Terms of Use](#).

# Vertebral haemangioma

[Dr Ayush Goel](#) and [Dr Matthew Mapes](#) et al.

**Vertebral haemangiomas** are a location specific subtype of [haemangiomas](#). They are most common of the benign vertebral neoplasms<sup>8</sup>. They are usually asymptomatic and incidentally detected due to their characteristic features on imaging for other reasons.

## Epidemiology

The incidence of vertebral haemangiomas is about 10% at autopsy<sup>1</sup>. The majority of haemangiomas are incidentally noted on routine radiographs of the spine. Often, small hemangiomas cannot be visualized on plain

film x ray and are found with more advanced imaging such as CT or MRI, or upon gross dissection. The occurrence of vertebral hemangiomas are seen slightly more in females for unknown reasons and are more symptomatic in the 4<sup>th</sup> decade of life.

## Clinical presentation

Most haemangiomas are asymptomatic. Collapse of the vertebral body or encroachment into the neural canal are some of the classic causes of pain. An increase in activity can cause the vertebral haemangioma to become painful, such as starting to exercise, housework and such. This is most likely due to axial loading through the body of the vertebra.

## Pathology

They are composed of vascular spaces which causes a displacement of bone. In some cases, specifically capillary types, lytic erosion into the epidural space can occur, however rare <sup>2</sup>. They are slow growing and most are not symptomatic.

## Distribution

The majority of all vertebral hemangiomas occur in the thoracic spine, but can be found throughout the spine.

## Radiographic features

The classic “[corduroy](#) cloth” appearance is strongly associated with vertebral hemangiomas.

### MRI

On T1 and T2 Weighted MRI sequences, a bright, high intensity zone is seen due to fat. The signal will be more intense on the T2 due to its affinity to show water as very bright. Thickened trabecula appear as low signal areas in both T1 and T2 images. MR shows extraosseous components better.

- **T1 C+:** with contrast, significant enhancement seen due to high vascularity

### CT

Axial CT will show a “[polka dotted](#)” appearance due to the thickened vertebral trabeculae <sup>3-4</sup>.

## Treatment and prognosis

Treatment for most hemangiomas is not necessary. When neurological deficits or severe pain treatment is necessary. In symptomatic lesions, there are many options which must be weighed. Radiotherapy, balloon kyphoplasty or transarterial embolisation with associated laminectomy are some of those options <sup>5</sup>. Serious bleeding can be a complication so care must be taken when undergoing open procedures.

## References

## Synonyms & Alternative Spellings

[Edit Article](#) Share

- [View Revision History](#)

URL of Article

<http://radiopaedia.org/articles/vertebral-haemangioma>

## Article Information:

**rID:** 25845

**Systems:** [Musculoskeletal](#), [Spine](#)

**Section:** [Pathology](#)

**Tag:** [spine](#)

**DEFEAT ATHLETE'S FOOT  
BETWEEN THE TOES**

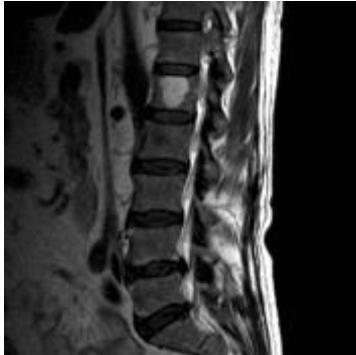
**ITCHY, RED,  
PEELING FEET?**

**CLICK HERE  
FOR A \$0  
CO-PAY\* OFFER**

LUZU



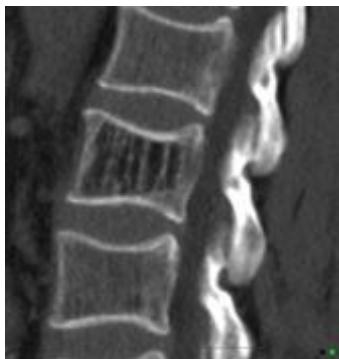
[Click here for Prescribing Information, including Patient Information.](#)



Case 1

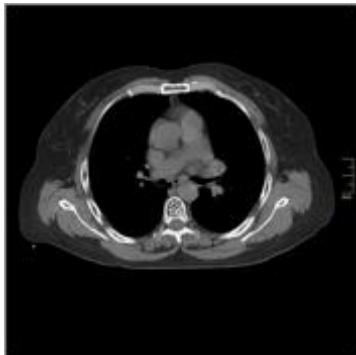
Drag here to reorder.





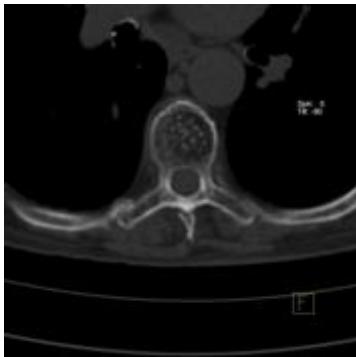
Case 2

Drag here to reorder.



Case 3: with polka dot sign

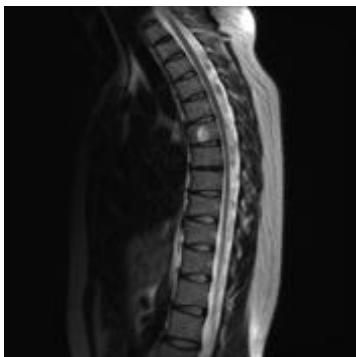
Drag here to reorder.



Case 4: with polka dot sign

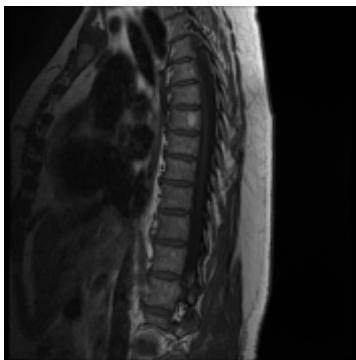
Drag here to reorder.





Case 5

Drag here to reorder.



Case 6

Drag here to reorder.

**\$150** to you **\$150** to Stand Up To Cancer  
when you open an Essential Checking account with qualifying activities.

[GET DETAILS NOW >](#)**S<sup>↑</sup>2C**

FIFTH THIRD BANK

Member FDIC.

## Encyclopaedia

### By Section:

- [Anatomy](#)
- [Approach](#)
- [Classifications](#)
- [Gamuts](#)
- [Interventional radiology](#)
- [Mnemonics](#)
- [Pathology](#)
- [Physics](#)
- [Signs](#)
- [Staging](#)
- [Syndromes](#)